



# PUBLIC SERVICES CENTER ANNUAL REVIEW

"To create community through responsive leadership and services for the citizens and visitors of the Apple Capital of the World."

## INSIDE THIS ISSUE:

<i>Building, Planning, Code Enforcement</i>	<b>2</b>
Wenatchee Storefront	<b>3</b>
<i>Park Maintenance, Cemetery</i>	<b>4</b>
<i>Fleet &amp; Facility</i>	<b>5</b>
<i>Streets, Lighting</i>	<b>6</b>
<i>Engineering</i>	<b>8</b>
<i>Wastewater Treatment Plant</i>	<b>10</b>
<i>Solid Waste</i>	<b>11</b>
<i>Environmental</i>	<b>12</b>
<i>Water Utility</i>	<b>13</b>
<i>Regional Water</i>	<b>14</b>
<i>Stormwater</i>	<b>15</b>
<i>Showcasing Our City</i>	<b>16</b>



## EMPLOYEE MESSAGE ...

This 2010 Public Services Center Annual Review was written by City of Wenatchee employees. It is to give you a glimpse into the daily activities of your city employees, to highlight projects completed in 2010 and to list upcoming goals and projects for 2011. In these tough budget times we are continuing to work on how we can provide the same level of service that our citizens expect, just on a smaller budget.

The majority of our daily work is routine maintenance and behind the scenes activities. If you have clean water to make your morning coffee and the traffic is flowing smoothly on your way to work you probably will not even think about what all went into making that possible. Our job is to maintain all of the infrastructure that goes into making the City of Wenatchee a great place to live.

## BUILDING, PLANNING, CODE ENFORCEMENT ...

In Community Development there are two divisions: Planning and Code Enforcement.

Code enforcement is responsible for receiving plans and applications, providing a complete plan review, issuing permits, and field inspections from new construction to additions and alterations on existing buildings. This department is also responsible for code enforcement programs which preserve and enhance the quality of our existing neighborhoods.

Planning consists of 3 planners who are responsible for development reviews, comprehensive plan amendments, rezoning, subdivisions, and special studies. This team ensures that quality development takes place in a timely and lawful manner consistent with development regulations. Coordination of housing and neighborhood revitalization programs and administration of related state and federal grant programs are also key components.



A new building graces the landscape in Wenatchee at Central Washington Hospital. The patient tower is 90% complete and has taken a large percentage of our inspectors time. At least one City employee was at the job site between 2 to 4 hours every day during much of the project. After completion, a new phase of construction will begin with remodeling of the main entrance and other wings.

*"The department tries to keep the process simple and the turnaround time short. Communication is very valuable and we have great consideration towards the applicants; a lot of time is spent walking them through their projects in the office and in the field as the code can get confusing. We value the applicant and manage all projects, small or large, with the same consideration. We are told by some of the builders, especially from out of town, how nice it is to work with Wenatchee!"*  
- Maria Reyes, Permit Specialist

## NEIGHBORHOOD OUTREACH

With over 485 Code Enforcement cases and approximately 2300 inspections, being an inspector can be a thankless job but Stacey Burts and Dave Nichols had a chance to change that. During the first three weeks of December, they went door to door to about 1200 homes and passed out informational leaflets detailing the upcoming code enforcement emphasis in 2011. The goal of the project was to inform people of the program, assess the needs for each address, and get feedback from the residents. Responses were overwhelming in affirming that the City is doing a good job and people have noticed positive

changes taking place in their neighborhoods. Some people even volunteered to help. Data will be compiled to determine areas with the greatest need and with resident participation, positive steps will be taken for renewing these neighborhoods.



### Annual Permit Totals

Binding Site Plan	2
Boundary Line	7
Building	360
Conditional Use	5
Demolition	8
Historic Preservation	21
Mechanical	34
Planned Development	2
Plumbing	136
Right of Way	84
Shoreline	1

<b>TOTAL PERMITS:</b>	<b>660</b>
<b>Construction Value</b>	<b>\$23,906,000</b>



*Concept Illustration of Pybus Public Market*

### **Looking forward to 2011:**

- Continue Annexation Outreach
- Broadview Secondary Access Plan and Code Amendments
- Pybus Market Realization
- Grandview Historic District
- Skyline Urban Growth Area Expansion Neighborhood Outreach
- Chelan County Regional Shoreline Master Program
- Development Code Amendments
- Code Enforcement Emphasis
- Spring Cleanup (metals, tires, batteries)
- Housing Code Revisions

### **Some highlights of this year's accomplishments are:**

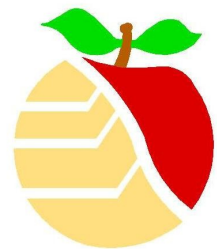
- Annexation Outreach
- Broadview Neighborhood moratorium and outreach
- Pybus Market Planning
- Grandview Historic District neighborhood outreach
- Permit Fees Cost Recovery Analysis
- Completion of 10 homes through Housing Rehabilitation Program
- \$516,378 awarded through Homeless and Low-Income Housing Funds
- Affordable Housing Task Force Recommendations
- Parkside Property Environmental Review
- Public Outreach at Wenatchee storefront
- 2010 Census address/boundary review
- Development Code Amendments
- Adoption of the 2009 International Building Code
- Created a Good Neighbor Handbook
- Plan Archival
- Hosted several building code seminars
- Issued permits for Walmart expansion
- Conducted 125 safety inspections of Wenatchee businesses

## **WENATCHEE STOREFRONT...**

In light of these economic times, when there is much banter about how our tax dollars are spent, the City of Wenatchee tried a new approach in an effort to get feedback from our citizens.

From October 12th through December 14th, the City occupied a donated storefront in downtown Wenatchee. In an effort called "Know Your City," all departments provided information for this one location where our citizens could stop and learn more. Information that could be found at the storefront included current and upcoming projects, budget breakdowns, department organizational structures, and other local agencies information. Besides display boards, there were various exhibits to view. The environmental department set up a groundwater model showing infiltration and sources of contamination. Our signal and lighting department had a traffic control box in operation so the inner workings could be viewed. The museum hung historic photos along the wall.

During this time employee volunteers heard citizen ideas, suggestions, and comments about City services. It was a great opportunity to connect with the public in a relaxed atmosphere with great things to show and discuss.





## PARK MAINTENANCE & CEMETERY ...

The Park Maintenance Division has the responsibility for the operation and maintenance of the City's park system. This includes weekly mowing the parks, maintaining the irrigation systems, cleaning the irrigation filters, weeding, pruning and caring for the landscaping and trees. Caring for the parks includes daily garbage removal, opening and cleaning the public restrooms at the parks and removing graffiti. During operation, the splash pad at Rotary Park requires daily maintenance.

In addition to the 13 parks they also maintain the landscaping around the City's 4 water reservoirs and at 7 City facilities. Every spring the play equipment at the parks get additional ground covering to ensure safety standards are met. The parks staff assists the cemetery staff with the maintenance and care of the cemetery. The parks crew also maintains the streetscape along Columbia Street, Walla Walla Avenue, Riverside Drive and Wenatchee Avenue. For public safety pest control on the over 300 trees along the downtown arterials is done with an injection program instead of spraying. Over 100 floral baskets are planted and maintained for the downtown area each year.

In the winter the Parks Maintenance Division is responsible for snow and ice control for the walkways within the parks as well as all of the sidewalks that adjoin City property. The parks crew also clears the snow and ice at all of the City's buildings and the downtown crosswalks.

### In addition to the ongoing maintenance these projects were finished in 2010:

- Repaired irrigation system and added new landscape to the intersection of Fifth Street and Riverside Drive
- Repaired the irrigation system at the Sunnyslope Interchange
- Finished the irrigation system at Locomotive Park. Switched the system from using domestic water to using Reclamation District irrigation water.

### Looking ahead these are the additional projects for 2011:

- Aerate and thatch the cemetery turf and start a spray program
- Add a new section to the cemetery irrigation system on Western Ave.
- Aerate all parks
- Install new play equipment at Pioneer Playground
- Pour concrete pads for under picnic tables in the parks
- Add additional drains to Rotary Park

*The Parks Crew mows over 65 acres of grass weekly.*



Hillcrest Mausoleum



Planting trees at Rotary Park

*The City of Wenatchee has over 1,000 trees that are pruned and maintained by the Parks Crew.*



Locomotive  
Park  
Irrigation Project

The cemetery staff is responsible for the sales of burial plots and cremation niches, sales of burial containers and memorial markers, coordination of burial arrangements with local funeral directors and grave site opening and closing services. There are currently over 18,500 interred at the cemetery and the facility has been averaging nearly 200 services per year. The cemetery staff is also responsible for the grounds maintenance of the entire 34 acre site, as well as the Home of Peace mausoleum on Miller Street.

FLEET & FACILITY ...



Graffiti at a park restroom. Cleaning consumes a lot of employees time.

The Fleet and Facilities Division is the internal support for the City. This division is crucial as it keeps the buildings and equipment operating smoothly allowing all the employees to do their jobs. Three mechanics, four facility maintenance technicians, an administrative specialist, and supervisor manage 49 buildings and over 200 pieces of equipment. This crew works remotely and independently on a moment’s notice to fix any need we might have, even on call for emergencies 24 hours a day, 7 days a week.

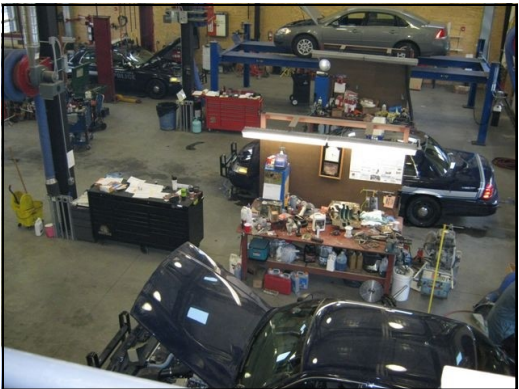
The mechanics are unique. Together they have a combined \$120,000 invested in their own tools that they are required to have to perform their job. They use those tools to fix all types of equipment such as passenger vehicles, dump trucks, graders, fire trucks, police cars, etc. including hand tools like weed eaters, push mowers and all the other variety needed to do our work here at Public Works.

The facility maintenance technicians work out of the Historic Police Station and perform plumbing, lighting, remodels, and general facility repairs. The HVAC maintenance technicians work out of the Wenatchee Convention Center and they perform mostly HVAC and electrical repair along with supporting general maintenance of the Convention Center buildings. With 284,792 sq ft of building maintenance city wide combined with mostly aging buildings, this crew stays very busy just keeping everything running smoothly.

Approximately 900 oil changes are done in a year



Okanogan Street pump building - damaged by an automobile accident.



The shop is large enough for 4 patrol cars to be serviced at one time.

Did you know?

The mechanics for years had to work on the fire trucks outside because the old Public Works shop was n't big enough for the cabs and ladders to be raised. As you can see in this picture, they have a new state of the art facility allowing them to work in a dry safe environment.



City Services Factoids

Light Systems	4522
Toilets	118
Sinks	183
Urinals	58
Boiler Systems	49
Security Systems	26
Elect/HVAC Systems	79
Fire Extinguishers	586
Alarm Systems	6
Fire Sprinkler Systems	7
Roof Systems	32
Water Systems	24
Emergency Generators	4
Elevators Systems	6



## STREETS AND LIGHTING ...

The City of Wenatchee street system handles well over 150, 000 vehicle trips each day and while a properly operating street goes relatively un-noticed, a poorly functioning street is very concerning to the public. Wenatchee streets impact our local economy and the livability of our community and to maintain our local streets requires public investment.

Public investment in streets can be broken down into three categories:

- **Preservation** is an investment made to prevent complete disrepair, this is commonly accomplished through street overlays. Preservation has had fairly consistent funding over the past 10 years. Funding allocated to street preservation for 2010 is \$613,000, half of which is to pay for 1998 overlay program. When the debt service on the 1998 Overlay Bonds ends in 2014, new bonds will need to be issued to keep preservation in line with need.
- **Street maintenance** is the investment and associated effort to keep our existing streets operating properly. Preservation and maintenance are joined at the hip and can be best summarized as ***an ounce of preservation being worth a pound of cure***. Street maintenance funding has decreased over the last 10 years relative to street system growth. In 2010 property tax allocation to street maintenance was \$0.57 per \$1,000 of assessed property value. This has decreased from \$0.98 per \$1,000 in 2000. The total maintenance budget for 2010 is \$1,455,000 with \$396,000 coming from gas taxes and \$1,059,000 coming from property taxes.
- **Street capital improvements** are dollars invested to make major improvements to our street system. These improvements include street widening, "safe routes to schools" sidewalk projects, signal installation, new street construction and street upgrades. Capital improvements are funded primarily with state and/or federal grants. Over the past 10 years \$21.7 million has been invested in our street system in reconstruction, sidewalk construction, signal installation and more. During these 10 years the City has averaged \$245,000 per year in dedicated funding, leveraging \$17.9 million in grant funds.



*Crack sealing by the City street division is a cheaper alternative to overlays but must be done on a more frequent basis.*

### Did you know that the street and lighting division maintains:

- Over 262 lane miles of road
- 100's of miles of pavement markings
- Over 2000 street lights changed on average each 3 ½ years
- At least 1000 "Stop" signs and 10,000 signs total
- Signal systems in 50 intersections

### Responsibilities of street division to preserve and maintain public streets:

- Sweeping
- Snow plowing
- Painting pavement markings
- Pothole repairs
- Paving and crack sealing
- Sign maintenance
- Street light maintenance
- Intersection signal maintenance



*Traffic signals are larger than they appear.  
This signal is 4 ½ feet tall.*

The City's lighting technician maintains the City signals and street lamps. There are approximately 2000 street lamps that must be maintained with nearly 600 lamps being replaced annually. Each year several lamps and poles must be replaced, due to vehicle accidents. Another responsibility is maintaining the signal heads in fifty intersections throughout the City, as well as the complex systems that control the operation and timing of the lights and pedestrian signals.

Many responsibilities of workers in the street division are done on a routine basis to maintain City streets. Two examples of this are street sweeping and snowplowing. Of course the degree of winter can dictate the extent of snow plowing significantly. But even when the snow plows are not out often times trucks are on the street applying de-icing chemicals. The dark stripes that are sometimes seen in the driving lanes during cold weather are a liquid de-icing chemical called magnesium chloride. More recently a new solid de-icing chemical called ice-slicer is also being used that is more effective in colder weather.

When the snow and frost are gone and the spring weather arrives, City plows and de-icing equipment go under cover and the street sweepers hit the roads. Operators sweep according to a series of specific routes, covering downtown areas at night and residential streets during the day so as to not wake people up. The sweepers work through the fall season as long as possible, until cold weather no longer permits operation. During the fall, neighborhood sweepers can fill a truck full of leaves in about an hour. Some of the leaves are now being recycled into mulch.

In addition to keeping the streets clear, the street crew also works on construction projects. These projects include small paving jobs, pouring of sidewalks, curbs and gutters, and the installation of manholes and stormwater catch basins. The division paints hundreds of miles of street striping, curbing and directional indicators at intersections. They also paint crosswalks and maintain the stamped red concrete crosswalks in the downtown core as well as the stamped asphalt crosswalks on Orondo Street and the new Riverside Drive.



*Working on the Millennium Clock*



*Employee safety is a very important part of this job. The crew's work requires them to be either on the side of the road or out in traffic. Every job requires additional equipment just for safety, such as cones, barricades, and signs. When working in the road, traffic control is planned out ahead of time to ensure personal safety as well as smooth traffic flow.*



*Stamped asphalt crosswalk on Riverside Drive*

Driving is only one of the many uses of public streets, buried beneath are pipes that convey utilities such as:

- water
- sewer
- cable television
- internet communications
- electricity

Streets are also used to host numerous social events including:

- parades
- marathons and biking events
- block parties

Maintaining public safety at these community events requires a significant amount of planning and preparation. Crews direct traffic, both in vehicles and on foot, using signs, barricades and cones. Then, when the function ends the street crew must remove the signs and cones. And just imagine how much garbage must be cleaned from the streets and sidewalks after the Apple Blossom Parade.



## ENGINEERING ...

City of Wenatchee engineers design, inspect and maintain the structural integrity and safety of municipal infrastructure such as streets, sidewalks, water supply networks, sewers, street lighting, public parks and bicycle and walking paths. The engineering division consists of personnel who specialize in civil engineering and contract management. Whether a project is designed by a City engineer or an outside firm, all plans for publicly owned infrastructure are reviewed by the engineering division. Once plans are approved construction of a project is inspected by a City engineer to ensure that the project is built according to approved drawing specifications and that the infrastructure will operate properly.

Capital projects for engineering are investments in publicly owned infrastructure. By law capital projects with a cost greater than \$64,000 must be put to bid by an outside contractor. One such example of this is the recently completed pedestrian bridge rehabilitation project. The bridge is just over 100 years old and received Federal stimulus dollars to clean, primer and paint the bridge and ensure that it will serve the community for another 100 years. The bridge is used by thousands of walkers, runners and bicyclists each year to access the trail. A few other notable projects from 2010 include North Wenatchee Avenue turn lanes and new traffic signals at intersections of Horse Lake Road and Maiden Lane, boat moorage at Riverfront Park, Day Drive Trailhead at the foot of #1 Canyon Road, storage and liftstation improvements to the sewer system in Olds Station, and new traffic signals at Washington/Miller.



*Pedestrian Bridge after rehabilitation*

### Pipeline Pedestrian Bridge Facts:

- Constructed from 1906-1908 at a cost of \$171,000 by "Washington Bridge Co."
- First highway bridge to span the Columbia River south of Canadian border
- Originally carried two wooden pipeline across the river opening 4000 acres for orchard development
- Purchased in 1911 by the state to become part of its state highway system
- In 1913 the Wenatchee Reclamation District purchased the bridge for \$1 and has maintained it ever since
- Toll fees ranged from \$.15 to \$.35 in 1908
- When originally built a sign was posted that imposed \$25 fine for crossing faster than a walk
- Footpaths added to outside of bridge in 1930
- Closed to vehicle traffic in November 1950.

### Upcoming Projects for 2011:

- Chelan Avenue and Orondo Right turn lane by Memorial Park
- Lincoln Elementary Neighborhood Connection Sidewalks
- Walnut Street Sewer Extension
- New sewer line along the railroad tracks from Miller to 5th Street
- \$9 million in odor/visual upgrades at the wastewater treatment plant
- 5th Street safety improvements from Miller St. to Western Ave.
- Addition of audible pedestrian signals in eight intersections
- Planning and design for South Wenatchee Avenue street widening



*Construction of the new turn lane on Wenatchee Avenue between Horse Lake Road and Maiden Lane*



*Post construction view of new turn lane at Horse Lake Road and Wenatchee Avenue*



## Responsibilities of the City Engineering Division

- Engineering support for all city utilities including domestic water supply, sanitary sewer system and stormwater systems operations
- Capital planning of City infrastructure including streets, stormwater, sanitary sewer, and domestic water
- Design of City-wide capital projects
- Administers street maintenance and pavement preservation programs
- Management of City right-of-ways
- Administers and monitors right-of-way permits
- Mapping of City streets, stormwater system, sanitary sewer system, domestic water distribution and new development
- Maintains and updates records of City infrastructure
- Administers capital facilities construction projects
- Provides and updates City development standards
- Engineering responsibility for traffic control devices and illumination systems
- Grant and loan administration
- Serves as a liaison between citizens, private contractors, other city departments/divisions as well as other agencies
- Provides plan reviews for private development

### LINDEN TREE OUTFALL PROJECT

A project with interesting timing that was completed in spring of 2010 was a new stormwater bypass at the bottom of 9th Street in Riverfront Park. The July 28th rainstorm dumped millions of gallons of water to the river and the new bypass that was engineered prevented what could have been major erosion and damage to what is known as the Linden Tree outfall. This outfall flows underneath the little bridge at the foot of 9th Street, that thousands of citizens and tourists cross each year on their strolls around the loop trail. Before construction, heavy storm runoff would flow with such intensity that it caused erosion of the riverbank.

The new overflow bypass allows for increased water volumes to flow a different route which is just south of the little bridge. This re-routed water enters the river with lower intensity; therefore reducing the amount of erosion and sediment that enters the river. The new engineering design includes a splitter box where the flow begins its bypass. This allows for water flowing from 9th Street to be detained long enough for sand, dirt and garbage to settle out and remain in the box where City crews can remove it.



*Stormwater channel under pedestrian bridge*



*Above: Flow control grate during construction*



*Left: Flows during the July 28th storm*

## WASTEWATER TREATMENT PLANT ...

All wastewater that doesn't go into a septic tank flows to the local wastewater treatment plant. The treatment plant is a biological system that relies on the expertise of operators to achieve the best conditions for breaking down wastes. These wastes consist not only of household water from sinks, dishwashers, showers, washing machines and toilets but also of wastewater from local restaurants, businesses and industries such as fruit packing plants.

One of the major accomplishments at the treatment plant this year was the cleaning of the digester gas system. The plant utilizes digester gas (methane), a byproduct of the treatment process, to heat sludge for digester operations and mix the contents of three 300,000 gallon digesters. For several years the storage and conveyance system has not worked properly. Two recent projects, digester cleaning and gas piping replacement have turned that around, resulting in significant operational savings for the City. Cleaning of the digester #2 after about 15 years allowed staff to store gas needed to fuel the boiler and avoid releases of methane and odors to the atmosphere. Portions of gas piping that convey gas to the boiler and storage facilities were replaced, as they were plugged from years of corrosion. Replacement has drastically reduced the use of natural gas as a fuel source. Total cost for these two projects was \$110,000. Since the inception of the project the drastic reduction in natural gas saves the city thousands of dollars each month, representing a return on investment of just a few years.



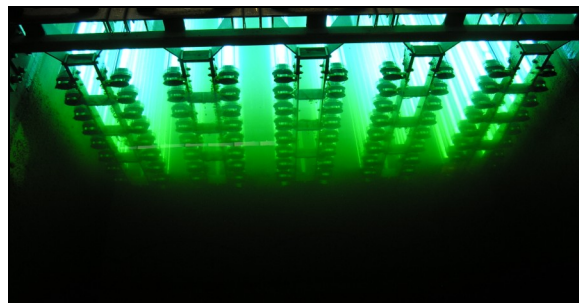
*Cleaning an inoperable primary digester.*



*Plugged gas piping prior to replacement.*



*Part of the secondary treatment process, this clarifier serves as a tank for solids to settle. The building (background left) is the UV disinfection building.*



*Submerged underwater, this is one of three banks of UV Lights used in the final stage of treatment to disinfect the water before it is discharged to the Columbia River.*

### *Did you know ...*

- Operators from the Wenatchee wastewater treatment plant staff the facility seven days a week.
- The WWTP receives and discharges to the Columbia River an average of three million gallons of treated wastewater per day.
- The treatment plant operates under a permit issued by the Washington State Department of Ecology and must meet stringent requirements to satisfy these permit limits.
- Approximately 1500 tests are performed at various points throughout the plant each month to insure that the permit is not violated.
- Test results are used by the operators to make adjustments to the plant process. Also test results must be reported to the Department of Ecology on a regular basis.
- Tests that fall outside the permit limits are called violations, are reported to ecology and, if necessary, corrective action is implemented.
- Solids are removed from wastewater and treated to become a final product called *biosolids*. These biosolids are used by farmers as fertilizer.
- The Wenatchee treatment plant has recently received recognition and awards for the cleanliness of the water discharged into the river.



A very exciting project for the wastewater treatment plant is deep in the planning and design stages that involves very innovative odor control and visual enhancements. Construction is slated for 2011-2012 with the objectives of bringing the plant current with new regulatory requirements, reducing odor from treatment processes, providing architectural enhancements and adding landscaping to improve facility appearance. Engineering and construction costs are estimated at \$9 million dollars. The project is funded by a combination of revenue bonds and low interest loans.



*This visual enhancement depicts what the treatment plant will look like after construction. Included in the renovations are steps leading to public viewing areas.*

## SEWER COLLECTION...

There are approximately 135 miles of sewer mainlines which consist of older clay tile or concrete pipe and newer lines consisting of PVC piping. They are engineered in size to accommodate flow in a given area or development and vary from 8 inches to 48 inches. In order for these sewer mainlines to operate properly, they must be kept clear of obstruction. This requires a maintenance program that consists of wastewater collection operators operating a camera truck as well as a high pressure jet/vacuum truck. This program allows for the operators to clean all mainlines on a schedule of three year intervals. Operations begin at the south end of the City and work west to east to



bring the cleaning operations down to the lowest part of the City. Some mainlines that collect more grease and debris must be cleaned on a more frequent basis, sometimes several times a year, such as areas that contain groups of restaurants. Located throughout the City are several sewer liftstations which also must be maintained by the collection operators. These liftstations pump water uphill to the system so it allows for the wastewater to flow by gravity.

### Collection Crew Responsibilities

- Jet and clean approximately 45 miles of mainline each year removing grease, debris and tree roots
- Video inspect approximately 50,000 feet of mainline to evaluate for pipe condition
- Maintain sewer trouble spots and clean sewer liftstations quarterly
- Respond to citizen complaints to assess sewer issues
- Clean, video inspect and approve all new sewer and storm mainlines in areas of new construction and development
- Assist other City departments to camera and/or vacuum vaults, water chamber, street digs and repairs, etc.
- Perform billable work for other municipalities, businesses and contractors that don't have necessary equipment

## SOLID WASTE SERVICES ...

Garbage services are provided to the citizens of Wenatchee through a contract with Waste Management, Inc. that runs through the year 2020. Based upon the provisions of the contract, Waste Management collects all solid waste throughout the City for both residential and commercial customers. While Waste Management bills and collects from commercial customers, the City bills and collects from residential customers. Included in the City bill is an administrative fee to recover the cost of maintenance and billing of accounts. The City is then in turn billed by Waste Management for their total residential collections.



## ENVIRONMENTAL ...



The Environmental Division has an important role at the City. This group has to adopt, comply and enforce state and federal regulations, and then educate our citizens. Some areas include: FOG (fats, oil, and grease) trap maintenance, cross connection control, stormwater discharge compliance, and industrial users inspections. Through programs they help keep the drinking water safe, the sewer system and treatment plant working efficiently, and eliminate pollutants in our nearby waterways.

### Educational Outreach

A large part of the Environmental Division's focus is to educate the public on best management practices. Every opportunity is taken to participate in local events where we can spread the news of programs that we enforce to encourage compliance. The annual KPQ Home and Garden Show is a great time to reach a large group. We talk to customers about keeping grease out of the sewers, conserving water, stormwater pollution prevention, and cross connection hazards.



*Booth at the KPQ Home and Garden Show*



*Students performing a dissolved oxygen test at Kids in the Creek*

Another opportunity for education is Kids in the Creek. Over a three day period, approximately 300 high school students from all over the Greater Wenatchee Valley converge at the Entiat Fish Hatchery. Here they learn the impacts of human activities on watersheds. Hands on stations allow the students to participate rather than listen, so they leave with a greater understanding of conservation.

### In 2010 there were ...

- 392 Grease Trap / Interceptor inspections
- 1749 Backflow assemblies in the City's water system
- 425 Cross Connection surveys performed
- 300 water samples analyzed - all were negative for bacteria
- 15 Water concerns investigated
- 35 Stormwater complaints investigated

### Accomplishments for 2010

- Cross Connection Survey for restaurants
- Participated at KPQ Home and Garden Show
- Toxicity testing on treated wastewater
- Stormwater Annual Report
- Cross Connection Annual Report
- Construction/Post-Construction Ordinance
- Stormwater Operation & Maintenance Plan
- Cross Connection neighborhood surveys
- Regional BAT/Landscaper meeting
- Wellhead Protection Letter
- Kids In The Creek—Water Quality Station
- Fresh Fruit Packer Monitoring
- Fresh Fruit Packer Inspections
- Stormwater outreach to businesses
- Water Use Efficiency Report
- Consumer Confidence Report
- Local Limits Testing on wastewater influent
- Stormwater GIS Data Collection
- Disinfection By-Product Monitoring
- Underground Injection Well Assessments
- Created car wash program

This year we developed the car wash program for charity fundraising groups. With the new IDDE ordinance, runoff from charity car washes is not allowed to enter the Columbia River. The City has been proactive in helping these groups find an alternative way to hold their event. With grant money we put together kits that pump the runoff into the sewer allowing the groups to stay in compliance. The kits are available for the groups to check out and use for any non profit car wash.



*Sample car wash kit available for charity fundraising groups*



## WATER UTILITY ...



Repairing a broken water line

The primary job of the water crew is to provide clean drinking water to our residents 24/7 by keeping the City of Wenatchee's water utility maintained. This is accomplished by the following activities: annually inspecting all 7,550 water meter chambers, annually checking and servicing all fire hydrants, maintaining all main-line valves and weekly checking of all pressure reducing valves (PRVs) in the system for leaks and pressure levels. In addition to the maintenance on the system, the water crew fixes emergency water-main leaks, sewer line breaks and breaks in the storm-water system. In 2010 the water crew had 350 requests for locates, over 150 calls to shut water off for repairs, changed out 106 meters and replaced 192 of the MXU radios. Their work is diverse as they also collaborate on additional projects throughout the city as well as assist with plowing the city streets during the winter months.

### 2010 Projects:

- Rebuilt all of the PRVs in the water system
- 228 Fire hydrant receive maintenance or were replaced
- Installed new stormwater line on Poplar from Springwater to Toaimnic Dr.
- Installed catch basins on Skyline Drive (in conjunction with the PUD project)
- Update water maps and began collecting GPS points for all components of the water system
- Installed irrigation system (almost 8000 feet of pipe) at the 8 MG Reservoir as part of the Pump Station 2 Renovation Project
- Constructed a lawn mower wash bay to collect the grass clipping washed from our riding lawn mowers
- Laid the rock and constructed a cement weir at the Linden Tree stormwater outfall



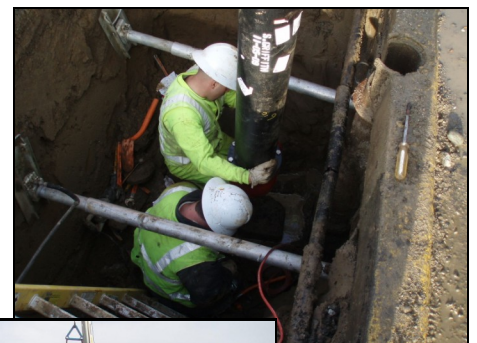
The water crew has the ability to access maps and the city network out in the field.

*The City of Wenatchee water system has 551,000 feet of pipe, out of that 45,000 feet is steel pipe. Almost all of the steel pipe is greater than 50 years old.*



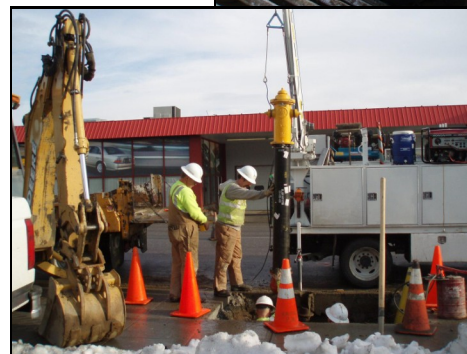
8 MG Reservoir irrigation project

- Poured a new sidewalk on the Methow Street side of the Community Center
- Assisted with clean-up and maintenance of the storm system, especially following the summer storm
- Riverside Drive - added irrigation system by the WWTP, added the Carnival entrance into the park and finished work on the curbs and storm swales



### 2011 Projects:

- Water Main Valves - Maintenance and Replacement
- Water Meter Chamber - Maintenance and Sidewalk maintenance
- Continue Hydrant Replacement program
- Replace piping and valves at the 1 MG (million gallon) Reservoir
- Continue collecting GPS points for the whole water system
- Replace old steel water mains



Replacing a fire hydrant

*Replacing 1 block (700 feet) of a steel water main costs approximately \$80,300.*

*This price includes: cutting the road, excavating and hauling the material away, the new pipe and materials, 2 new fire hydrants, reconnecting the services (homes), the back fill material, asphalt, equipment and labor costs.*

## REGIONAL WATER SYSTEM ...

The Regional Water Supply System serves the City of Wenatchee, the Chelan County PUD and the East Wenatchee Water District. The system is comprised of 4 main pumping wells located by Lincoln Rock State Park, plus 2 backup wells in Wenatchee and 3 backup wells in East Wenatchee. The City of Wenatchee performs the daily operation and maintenance of the system. In addition to the constant computer monitoring, the operators visually check the 4 main pumping wells, the 2 pump stations, the 4 reservoirs and the chlorination system daily. The backup wells are checked weekly and they are flushed monthly. Annually the pipeline in the bridge crossing is visually inspected. The Regional Water system has an operator on call 24 hours a day 7 days a week, to ensure all residents in the Wenatchee valley have an adequate supply of safe drinking water.

### 2010 Projects:

The major project completed in 2010 was switching the chlorination system from a chlorine gas system to a liquid hypochlorite system. The switch was made to reduce the risk of possible exposure to chlorine gas. A large chlorine gas leak could have been damaging to the infrastructure at Rock Reach Dam, as well as a safety concern for the operators, visitors to Lincoln Rock State Park and other business in the area. The liquid sodium hypochlorite is delivered to regional at a 12.4% solution and is then diluted down to 2% before it is injected into the water system. The resulting residual chlorine in the drinking water system is around 0.35 ppm (parts per million). This level of chlorine is equivalent to 35 cents out of a million dollars.



*Adding on to the Regional Building to make room for the new chlorination system*



*The Bulk Tank containing the 12.4% solution & the Dilution System*



*The Day Tanks containing 2% Sodium Hypochlorite*



*Sodium hypochlorite injection pumps*

*The total volume of water pumped in 2010 was 3.5 billion gallons.*

### 2011 projects:

In 2011 the Regional Water telemetry system will connect into Chelan PUD's telemetry system. The Regional Water telemetry system is already connected to the City of Wenatchee's system and the East Wenatchee Water District's system. This will allow the Regional Operators to monitor all of the lead reservoirs on the system, to view the water levels, and what pumps are active.

*The peak demand day was August 12<sup>th</sup> where 19.4 million gallons were pumped.*

*There are 9.38 miles of pipe that convey the drinking water from the wells near Rocky Reach Dam into town. The regional pipeline is 30" diameter ductile iron pipe, except the Odabashian Bridge crossing which is a 36" steel pipe.*



## STORMWATER UTILITY ...



*Cleaning a residential catch basin with the new Vactor Truck*



### What is a Vactor Truck?

- It is the primary piece equipment used to maintain the storm system
- It is a combination jet/vacuum truck
- The jet is capable of producing a 2500 psi stream of water
- The 8 inch suction hose has the capability of sucking up a 16 pound bowling ball from 20 feet below the surface
- It has a water capacity of 1500 gallons
- The debris tank can hold 12 yards of sand and garbage

2010 was a busy year and a year that brought some new equipment and technology to the maintenance of the stormwater utility. The City of Wenatchee was able to purchase a demo-model Vactor Truck, which was partially funded with a stormwater grant. This new truck replaced an old piece of equipment that required a lot of maintenance to keep it operational. With the new truck the stormwater crew was able to finish cleaning all of the catch basins on the system. Cleaning the catch basins was a project that has been ongoing seasonally since 2008. Some of the catch basins in town had not been cleaned in over 20 years. Starting in 2011 all catch basins and curb inlets will be put on an annual inspection cycle. They will be checked for necessary maintenance or repair.

During the summer the truck was outfitted with a laptop and GPS capabilities. This new technology allows the stormwater crew to pull up maintenance records on each component of the stormwater system while out in the field. After cleaning a catch basin they are able to add to the maintenance record for that catch basin, building on its history. Using this maintenance history maps can be generated showing what parts of town

were cleaned in the last week, month or year and it will show which catch basins require more frequent cleaning.

The stormwater crew was very busy this summer following the July 28th storm. They along with the crews from the water, street and parks divisions worked on cleaning up the mud and debris left by the storm. They worked to get the streets and stormwater system ready to handle the next storm.

The primary focus for 2011 will be to get all of the main lines cleaned.

#### ***Components of the stormwater system inspected and cleaned by the stormwater crew:***

- 388,000 feet of main lines
- 92,420 feet of laterals
- 3,922 catch basins / curb inlets
- 1,710 manholes



**City of Wenatchee****Mayor**

Dennis Johnson

**City Council**

Jim Bailey

Carolyn Case

Don Gurnard

Mark Kulaas

Doug Miller

Karen Rutherford

Tony Veeder

***Public Services Center****1350 McKittrick St.**PO Box 519**Wenatchee, WA 98807**Phone (509) 888-3200**Fax (509) 888-3201**www.WenatcheeWa.gov***SHOWCASING OUR CITY****Washington Water/Wastewater Operations Workshop**

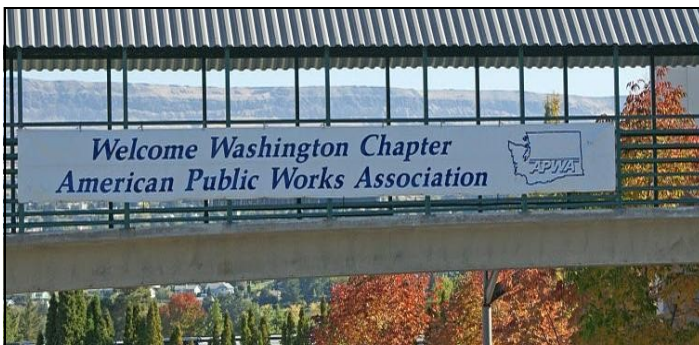
2010 was a year filled with showcasing our beautiful city. The Water/Wastewater Operators Conference (WOW) was held during the last week of March. This four day conference brought almost 600 attendees to the area. There were 37 exhibitor booths, 70 speakers, and 67 breakout sessions, which is the most aggressive tract to date. Three tours and a live tapping demonstration rounded out the conference making for a great time.

**American Public Works Association—Washington Chapter**

The Fall APWA Conference was held in Wenatchee October 5 through 8, 2010. Paid attendees topped 300 from the State of Washington and 113 exhibitors manned 61 exhibitor booths from all over the United States. There were

57 speakers with 22 moderators and the conference hosted one tour and one golf tournament. Wenatchee was heralded the "Apple and Hospitality Capital of the World" in the 2010 Washington Public Works Magazine winter edition. Kudos to all the staff that made these conferences a success!

**Congratulations also goes out to Ruta Jones for her election to the board of directors for APWA. She joined the board for a two year term starting 2011.**



Another notable accomplishment is Dan Frazier's appointment to the Operations Board of the Association of Washington Cities Risk Management Service Agency. He was elected at the annual conference in June. Congratulations Dan!